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REMARKS

Claims 8-14 are pending in this application. Claims 12 and 13 have been allowed. In the Final Office Action, Claims 8-11 and 14 were rejected as being obvious over U.S. 4,943,333 to Chang in view of U.S. 1,527,748 to Rambow.

For the following reasons, it is believed that the obviousness rejections of Claims 8-11 and 14 are overcome, and that all claims are allowable.

As discussed in the present Specification, prior art billiard cues formed from a wood core and a skin of composite material have generally not been popular with highly-skilled billiard players for a number of reasons, including the weight of the wood/composite cues, particularly at the tip end of the cue (which effects cue ball deflection), and the fact that these cues are on average not any straighter than conventional wood cues. The present applicant has identified one source of these problems—that the kinds of hardwoods used in prior composite coated wood shafts tend to be unstable, and are not optimal for use in hybrid wood/composite cues, and solved these problems in a way that was not taught by prior art. Furthermore, the applicant solved these problems by proceeding against accepted wisdom in the pool cue art by forming a hybrid wood/composite cue stick using a very light wood core, having a density of below about 9 grams per cubic inch. One of ordinary skill would have been motivated away from using woods having a density below about 9 grams per cubic inch, because these woods would have generally been considered to have less strength than conventional, denser woods, such as maple. Furthermore, the lightness of these woods would be seen as a detriment in the field of pool cues, since players generally prefer cues having a consistent weight. Thus, one of ordinary skill would have been directed away from the present invention based on what was conventionally known with respect to hybrid wood/composite cue sticks, such as described in the cited Chang reference.

Moreover, the Rambow patent would not have motivated one skilled in the art to employ a wood having a density below about 9 grams per cubic inch in a hybrid wood/composite cue such as described in Chang. Rambow does not even discuss the type of wood used for the cue stick shaft, except in relation to the wood used for the butt end. Rambow states only that butt is made from “hard wood,” and the shaft is made from “lighter or softer wood” (i.e., lighter or softer than the hard wood of the shaft), but provides no hint as to what density this wood has in

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absolute terms. Rambow also states that some non-specified "American woods" can be used in place of "heavier foreign woods" in some embodiments of Rambow's design. Again, however, there is no discussion of what types of woods specifically should be utilized. Furthermore, the reason Rambow states that these "American woods" can be used in lieu of "heavier foreign woods" is because of the presence of a complex rod and socket system that "provides the necessary weight and balance." Thus, the understanding of one skilled in the art would have been that the complex rod and socket system described in Rambow was necessary element if one were to attempt to combine Rambow and Chang in the manner proposed by the Examiner. However, the rod and socket system of Rambow would be understood as adding unnecessary complexity and expense to the hybrid wood/composite cue of Chang, and would change the entire principal of operation of the Chang cue, which involves drilling holes in the wood core to destroy the composition of wood fibers, and then coating a glue and composite material to produce a preferred cue size. Thus, one of ordinary skill would actually be directed away from making the combination in the manner proposed by the Examiner.

For the foregoing reasons, it is submitted that the present obviousness rejections are successfully traversed, and it is respectfully believed that all claims are allowable.

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CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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